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**News Headline:** EPA Administra  
tor Lisa Jackson will be Tulane's commencement speaker |  

**Outlet Full Name:** Times-Picayune - Online  
**News Text:** Lisa Jackson, a New Orleanian who is the Environmental Protection Agency administrator, will be the principal speaker at Tulane University 's Unified Commencement on May 19. Jackson, who earned a bachelor's degree with highest honors in chemical engineering from Tulane, will be the first university graduate picked for this role, Tulane President Scott Cowen said Friday in making the announcement.

The ceremony, which will start at 9 a.m. in the Mercedes-Benz Superdome, will be followed throughout the day by ceremonies for individual schools and colleges. The schedule is online.

Jackson, 50, was born in Philadelphia. She was adopted as an infant and grew up in New Orleans, where she was valedictorian of her class at St. Mary's Dominican High School.

She earned a master's degree in chemical engineering at Princeton University, joined the EPA as a scientist. President Barack Obama appointed her administrator in 2008.

**News Headline:** EPA testing in Dimock, Pa., feeds drilling debate |  

**Outlet Full Name:** Ithaca Journal - Online  
**News Text:** DIMOCK, Pa. — The U.S. Environmental Protection Agency's testing of scores of water wells will give residents of a small northeastern Pennsylvania village a snapshot of the aquifer they rely on for drinking, cooking and bathing.

The first EPA test results, expected this week, are certain to provide fodder for both sides of a raging 3-year-old debate over unconventional natural gas drilling and its impacts on Dimock, a rural crossroads that starred in the Emmy Award-winning documentary “Gasland.”

A handful of residents are suing Cabot Oil & Gas Corp., saying the Houston-based driller contaminated their wells with potentially explosive methane gas and with drilling chemicals. Many other residents of Dimock assert the water is clean, and that the plaintiffs are exaggerating problems with their wells to help their lawsuit.

In a letter to EPA Administrator Lisa Jackson, a pro-drilling group called Enough is Enough contends the agency's “rogue” Philadelphia field office has allowed itself to be a pawn of trial lawyers seeking a big payout from Cabot. More than 300 people signed it. “Dimock Proud” signs dot lawns throughout the village in Susquehanna County, one of the most intensively drilled regions of the Marcellus Shale gas field.

The same group recently launched a website aimed at dispelling what it contends is the myth that Dimock's aquifer is contaminated.

Residents who have been clamoring for federal intervention say the attacks on the EPA — which have come not only from their neighbors but from Cabot and Pennsylvania's environmental chief — are groundless.

“Since the EPA's investigation began, Cabot and (state regulators) have undertaken a shameless public campaign against the EPA's attempt to rescue the victims who are now without potable water and prevent their exposure to hazardous constituents now present in the aquifer,” one of their lawyers, Tate Kunkle, wrote recently. “One would ask why Cabot and the department would oppose the EPA's study of the aquifer and oppose further sampling if they were so sure the aquifer was not contaminated.”

Cabot spokesman George Stark said the company opposed the EPA testing because it creates a false impression about Dimock.

“It's the notion that there must be something wrong there in order for the EPA to either do testing or to deliver water. I think it causes more concern, more mistrust, more misinformation about the industry overall,” he said.

In addition to testing scores of water wells, the EPA is paying to deliver fresh water to four homes where the agency cited

worrisome levels of manganese, sodium and cancer-causing arsenic.

Brian Oram, an independent geologist and water consultant from northeastern Pennsylvania, said he is puzzled by the agency's rationale for being in Dimock, since the substances that EPA said it's most concerned about are naturally occurring and commonly found in northeastern Pennsylvania groundwater. By that standard, EPA would have to deliver water to thousands of households, he said.

Nevertheless, Oram supports the EPA testing because it will provide water quality data the parties can trust, and against which future drilling can be measured.

"It would have been nice if they came out and said the real reason (for the testing) was to put this to bed, find out what's going on ... (and) create a baseline that would allow us to move forward," said Oram, who has looked at the data cited by EPA. "That makes more reasonable sense for why EPA walked into Dimock. If you base EPA's decision on the presence of manganese and sodium and arsenic, it makes no sense."

The testing will give residents a snapshot of their water. What it won't tell them is how any contaminants found in the water got there.

That's what researchers at Duke University and the University of Rochester, who are conducting their own studies in Dimock, are hoping to pin down.

They are using a technique called tritium-helium dating to pinpoint the age of the water coming out of residential water wells — in other words, how long it's been since it fell as rainwater and percolated into the ground. Duke researcher Tom Darrah said age dating will help clarify whether contaminants were present before Cabot began drilling the wells, or showed up after drilling began.

Darrah is also testing for methane, the primary component of natural gas. Methane is not known to be harmful to ingest, but at high concentrations it's flammable and, if it escapes into enclosed areas, can cause asphyxiation.

Cabot asserts the high methane levels that its own testing has consistently found in the Dimock water wells are naturally occurring and easily remediated. Stark said nearly 80 percent of the 2,000 Susquehanna County wells sampled by the company over the years had elevated levels of methane prior to drilling.



But state regulators have cited "overwhelming evidence," including chemical fingerprinting, that linked the methane in Dimock's water supply to improperly cemented gas wells drilled by Cabot. The company has plugged three wells.

Moreover, a Duke study released last year found that drinking water wells close to drilling operations in Dimock and elsewhere in northeastern Pennsylvania had higher levels of methane than water wells farther away, suggesting methane migration from gas well sites is a relatively common problem. A follow-up Penn State University study, however, found no such linkage.

Dimock residents Duane and Jen Teel say they've never had a problem with their water, and don't believe that drilling has affected it. Nevertheless, they are eager for the EPA testing to confirm that it's safe for themselves and their two children.

The Teels, who have steered clear of the rancorous back-and-forth that's consumed Dimock, also hope the federal investigation will tamp down the controversy.

"Maybe it'll quiet everybody up," Jen Teel said, "because it'll prove either way that the water was bad or it wasn't bad."

**News Headline:** EPA gives preliminary OK to Colorado's regional haze plan |  

**Outlet Full Name:** NewsOK.com (Oklahoman) - Online

**News Text:** The U.S. Environmental Protection Agency has given preliminary approval to Colorado's plan to reduce pollutant emissions that affect visibility at federal wildlife areas.



The EPA and other agencies have been monitoring regional haze since 1988, with an eye toward improving air quality at 156 national parks and wilderness areas.

Oklahoma saw its plan to address regional haze rejected by the EPA last year. The state and its two largest utility companies last month asked the 10th Circuit Court of Appeal in Denver to review the EPA's decision.

At first read, the difference between the states' plans seems to be Colorado's willingness to retire old coal plants and switch others to natural gas, while Oklahoma had hoped to switch to low-sulfur coal to keep its coal plants in operation for the foreseeable future.

Colorado Gov. John Hickenlooper said he was pleased with the EPA's ruling.

"The EPA's proposal to approve the Regional Haze Plan is a ringing endorsement of a comprehensive and collaborative effort to address this issue. This plan is a major step in the state's efforts to comply with the federal Regional Haze rule, a congressionally-established air quality goal that seeks to improve visibility in national parks and wilderness areas across the country, while also providing public health benefits."

**News Headline:** HYDRAULIC FRACTURING: Wastewater injection well sparked earthquake -- Ohio officials |  

**Outlet Full Name:** Greenwire

**News Text:** A series of earthquakes near Youngstown, Ohio, were most likely caused by the underground injection of shale drilling wastewater, Ohio officials have concluded.

"After investigating all available geological formation and well activity data, ODNR regulators and geologists found a number of co-occurring circumstances strongly indicating the Youngstown-area earthquakes were induced," the Ohio Department of Natural Resources said in a release today. "Specifically, evidence gathered by state officials suggests fluid from the Northstar 1 disposal well intersected an unmapped fault in a near-failure state of stress causing movement along that fault."

The state's report found the well connected to the earthquakes was positioned improperly because of a lack of regulator access to adequate geological data. New rules emphasized by state officials will require the driller to submit to the state a complete roll of geophysical logs.

"These logs were not available to inform regulators of the possible issues in geologic formations prior to well operation," the state's report said.

A magnitude-4.0 quake near the well on New Year's Day got national attention and widened unease about shale drilling in Ohio, where Gov. John Kasich (R) has promoted production as a "gold rush" (Greenwire, Jan. 5). The eastern part of the state sits atop the gas-rich Marcellus Shale and the Utica Shale, which is emerging as a new potential source of gas liquids and oil.

The issue in the Youngstown quake is not drilling itself -- or the hydraulic fracturing production process -- but underground injection of brine.

Fracturing shale requires the use of millions of gallons of water, and subsequently creates millions of gallons of salty wastewater more toxic than what was initially fired down the hole. Drillers must figure out how to dispose of it. Some reuse part of it in the next "frack job," but they often inject it back underground in a deep disposal well.

Similar "underground injection" of brine from shale is believed to have caused earthquakes in Arkansas earlier this year. Oil and gas production itself has also caused earthquakes, most famously in Wilmington, Calif., where oil extraction caused earthquakes that stretched from 1947 to 1961.

The department's release today emphasized the new rules for underground injection over the confirmation that the earthquakes were caused by the injection well. The state's release called the new rules "among the nation's toughest."

The rules will require well operators to submit more comprehensive geological data when requesting a permit to drill, and the chemical makeup of all drilling wastewater must be tracked electronically, the Associated Press reported. Requiring well operators to submit more comprehensive geologic data is just one of the added regulations the department will either impose immediately or pursue through legislative or rule changes. Other changes include:

Future injection into Precambrian rock will be banned, and existing wells penetrating the formation will be plugged.

State-of-the-art pressure and volume monitoring will be required, including automatic shut-off systems.

Tracking systems that identify the makeup of all drilling wastewater fluids entering the state will also be required.

A Youngstown-area lawmaker criticized state officials for having moved too slowly amid the early earthquakes and called for the state to shut down the well owned by D&L Energy Inc., an independent oil and gas operator.

"Regulations are good and a step in the right direction," state Rep. Bob Hagan (D) told the Vindicator newspaper of Youngstown today. "I think it is time to shut down the D&L facility."



Scientists have known for years that injecting oil and waste underground causes such earthquakes. But it's not just oil and gas activity that makes the ground shake. More "earth-friendly" procedures, such as geothermal energy production and carbon sequestration, are also known to have set the earth rumbling.

A National Academy of Sciences panel is already studying how oil and gas production and other types of energy production can lead to man-made earthquakes. NAS officials are hoping to release that report this summer.

Nationally, U.S. EPA records show there are 150,851 "Class II" injection wells associated with oil and gas, and 177 of them are in Ohio. Underground injection is also used to dispose of radioactive waste, hazardous waste, mining fluids and carbon dioxide. There are about 500,000 other types of injection wells that dispose of nonhazardous waste.

In Pennsylvania, just across the border from Youngstown, state regulators under pressure from EPA have been pushing drillers not to send water to treatment plants that discharge into rivers. That means companies either reuse the water or ship it off for injection, and there are relatively few injection wells in Pennsylvania.

EPA, which oversees the injection program in Ohio, does not require states to look at earthquake potential when permitting underground injection wells for oil and gas waste.

**News Headline:** UPDATE 1-EPA to retest Wyoming water said tainted by fracking |  

**Outlet Full Name:** Reuters - Online

**News Text:** \* EPA to retest water with Wyoming state, tribes

\* Wyoming, industry had raised questions about the report

\* EPA delays peer review of draft report

WASHINGTON, March 9 (Reuters) - The U.S. Environmental Protection Agency has agreed to work with the Wyoming state government to retest water supplies after a federal report last year concluded natural gas drilling likely polluted a local aquifer.

The EPA has been investigating an aquifer near natural gas drilling in Pavillion, Wyoming, for years after residents complained their drinking water smelled and tasted odd.

It concluded in a December draft report done without broad input from the state that chemicals including benzene, alcohols and glycols likely migrated up into the aquifer from hydraulic fracturing, or fracking, operations.

Wyoming politicians and the oil and gas industry criticized the report when it came out. Matt Mead, the governor of Wyoming

which produced 10 percent of U.S. natural gas in 2010, called for more sampling, more data, and more participation in the study by state regulators.

EnCana, a Canadian company that owns the gas field near Pavillion had said the contamination could have come from the EPA's building of monitoring wells at the aquifer .

The EPA will now work with Wyoming state regulators and two native American tribes to retest the water and "clarify questions about the initial monitoring results," the agency said in a release on Thursday. The EPA will also work with the U.S. Geological Survey on the methodology and other aspects of the tests.

The EPA has delayed the peer review process of the draft study to include the results from the next phase of testing.

New drilling techniques such as fracking have revolutionized the U.S. natural gas industry by giving companies access to vast new reserves that could supply the country's demand for 100 years, according to the industry.

Environmentalists and health groups worry that some fracking operations near homes and schools pollute water and air. The industry denies that water supplies have ever been tainted by the technique.

#### WYOMING MORE VULNERABLE

The EPA said in December that Wyoming, which produced more than 10 percent of U.S. natural gas in 2010, was much more vulnerable than most areas to water contamination from fracking because drilling there often takes place closer to the surface than in other states.

In 1987, the agency documented one case of well water pollution from fracking fluids used by Kaiser Exploration and Mining at a site in West Virginia. That was the only previous case in which the federal government said fracking polluted water.

The new tests in Wyoming will take place at monitoring wells the agency built at the aquifer to take the original samples.

EnCana spokesman Doug Hock said the agreement demonstrated that the draft report was "rushed" and that the assertions were not supported by the data. The company said the monitoring wells should be independently re-examined given the questions raised after the draft report was released.

The EPA did not immediately respond to questions about that request.

EnCana and the Wyoming state government have been paying for water deliveries for about 25 homes in the area. This week, Wyoming Gov. Mead signed a law that would direct \$750,000 to developing a longer-term solution providing safe water to residents.